

Class Exercise – 6.2

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Submission: Save this Word document with your answers as a PDF file and upload the PDF file to Canvas.

Area Transit Authority

The Area Transit Authority (ATA) is a rural public transportation company. ATA operates a fleet of 25 buses that serve approximately 1,000 riders each day. The bus operation involves 10 regular routes, plus routes for special events. The ATA employs 20 full-time drivers and 10 to 15 part-time drivers. The dispatcher coordinates the hiring of drivers, staffing routes with drivers, and communicates with the drivers regarding traffic information and special passenger pick-up arrangements.

Use one of the diagramming tools identified on the “External Tools Page” in Canvas. You’ll need such a tool for this chapter’s case study.

Tasks

1. Identify possible actors in ATA’s bus operations:
 - Mechanic
 - Driver
 - Trainer
 - Rider
 - Planner
 - Dispatcher
2. Identify possible processes in ATA’s bus operations:
 - Hiring
 - Execute Route
 - Staffing Route
 - Training
 - Communicating
3. Complete the use case narrative for one of the processes of the bus system using the actors identified above.

Case Name:	Staffing route
Actors:	Dispatcher, driver
Successful Completion:	Staffed
Alternative:	Part time driver cancelled route
Pre-Condition:	Available full time driver
Post-Condition:	Informed driver
Assumptions:	Available bus

4. BONUS: Create a state transition diagram that describes typical passenger states and how they change based on specific actions and events.